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SNOW SURVEYS and WATER SUPPLY OUTLOOK for ALASKA



U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

ALASKA SOIL CONSERVATION DISTRICT

AS OF
MAR. 1, 1978

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: *SPRINGTIME ON THE KENAI PENINSULA*

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



FEDERAL - STATE - PRIVATE
SNOW SURVEYS
AND
WATER SUPPLY OUTLOOK
FOR
ALASKA

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MEASURING SNOW AT ARCTIC VILLAGE

ALASKA SUMMARY
as of
MARCH 1, 1978

Snowpack in the State now ranges from a high of nearly 50 percent above average on portions of the Kenai Peninsula and Brookes Range to about 35 percent below average in portions of the lower Susitna Valley, Kuskokwim headwaters, and areas of the Upper Yukon Basin. The bulk of the State, however, is mostly average to 20 percent below.

One of the most significant aspects of this year's snowpack is its high variability in relatively short distances. No region has a consistent snow cover. Wind and temperatures have been unusual, too. Snow drifts are larger and are oriented in uncommon directions. A similarity of this winter to last has been above normal temperatures. But generally, far less moisture has fallen. Mild temperature, wind, and in some cases, rain, have produced very hard crusts in areas of the Susitna and Copper valleys.

Avalanche activity was extremely heavy during January and early February in Southcentral. Mountain travel is still hazardous. The major storm striking Southcentral early in February was much less widespread than originally thought. Snowfall was heavy in areas adjacent to tidewater, but tapered off rapidly moving up the Copper and Susitna valleys.

Area summaries are as follows:

KOYUKUK DRAINAGE

The Koyukuk region has the most dramatic variation in snow cover, percentage-wise. Bettles snow is 30 percent below normal while Anaktuvuk Pass, 85 miles to the north, is 75 percent above normal. Adjacent snow courses along the haul road follow a similar pattern. Wind at Anaktuvuk is normally guided by the north-south orientation of the Pass. This year, strong easterly winds have closed the airport many times and probably account for the heavy snow in the region.

UPPER YUKON DRAINAGES

The Upper Yukon also shows far less consistency than usual. The eastern Brooks Range ranges from about average to 15 percent below, while the Black River is nearly 35 percent below. Canada reports a lean snowpack in the Yukon headwaters, generally 20 to 30 percent below average, with some areas short half the normal snow cover.

KUSKOKWIM DRAINAGE

The Upper Kuskokwim is similar to last year which is well below normal. Farewell's snow is 25 percent below, with Lake Minchumina even leaner at 40 percent below.

TANANA-CHENA DRAINAGE

The Delta Junction-Isabell Pass area is an island of above normal snow in the Tanana drainage. Otherwise it varies from 30 percent below average around Tok to 5 to 20 percent below in the Salcha drainage, to 35 percent below in parts of the Chena and Chatanika. Snowmelt runoff is expected to be about 25 percent below normal through Fairbanks. This is a little higher than the snowpack indicates because soil moisture under the pack is better than it has been in the last six years.

COPPER DRAINAGE

The white blanket varies greatly across the Copper River Basin. The west side is about average; Mentasta Pass is well below; the vicinity of Mt. Drum is above; and the north side of the Chugach Range is below average. An extremely dense, three-inch wind slab covered the snow surface of treeless areas near the Sanford River course.

SUSITNA DRAINAGE

The Upper Susitna Basin is generally about average. The exception is around Fog Lakes, however, where the snowpack is 45 percent below average. The whole region appears buffeted by strong winds. Drifts often tail off the same object in several different directions.

The Lower Basin varies from 5 to 45 percent below normal in spite of receiving greater than normal monthly increment of snowfall for February. Dense layers and crusty snowpacks were encountered at most courses.

MATANUSKA DRAINAGE

The Chugach Range and east side of the Talkeetnas are probably about average. But Independence Mine snow course, north of Palmer, indicates a 35 percent snow shortage in the Little Susitna headwaters.

UPPER COOK INLET - KENAI PENINSULA DRAINAGES

This region received the bulk of the snow from the early February storm. A doubling of the normal monthly increment of snow fell on the Upper Cook Inlet area. The Peninsula received up to four times the usual amount for February. Highway crews were busy three days running clearing avalanches that crossed the Seward Highway.

Ship Creek snowpack is now average for March first and its runoff should be average, also. McArthur snow course, on the west side of Cook Inlet is 40 percent under normal. Meanwhile, Mt. Alyeska and Turnagain Pass on the east side are about 40 percent above normal.

PRINCE WILLIAM SOUND DRAINAGE

Current snow cover in the Valdez-Thompson Pass area varies from 10 percent below average in the pass to 35 percent below in town. This is half as much as the record amounts recorded for March first a year ago. Warm spring-like weather accounts for some low elevation losses.

SOUTHEAST

Snow in the mountains is below average and behind last year. At low elevations it is also below average, but far more is on the ground than a year ago.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year <u>2/</u>	Average ⁺
YUKON RIVER at Eagle	Not Forecast			Not Available	
PORCUPINE RIVER near Ft. Yukon	Not Forecast			Not Available	
SALCHA RIVER near Salchaket	620	86%	April-July	552	721
CHENA RIVER at Fairbanks	420	75%	April-July	493	559
LITTLE CHENA RIVER near Fairbanks	73	77%	April-July	83	94*
YUKON RIVER at Ruby	Not Forecast			Not Available	
SHIP CREEK near Anchorage 1/	59	103%	April-July	94	57
SOUTH FORK CAMPBELL CREEK at Canyon Mouth near Anchorage	13.4	104%	April-July	19.9	12.9

1/ Measured flow adjusted for diversion.
2/ Provisional data, subject to revision.
 * Estimated.
 + 1963 - 1977 period.

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD		
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)		Years of Previous Record
						Last Year	Average ⁺	
NAME	Number	Elevation						
AS OF FEB. 15, 1978								
<u>TANANA-CHENA:</u>								
Caribou Mine	55	1115	2/16	22a	4.4e	3.0e	4.7	9
Cleary Summit	64	2230	2/16	21a	4.0e	4.9e	6.0	9
Little Chena	62	2200	2/16	20a	3.6e	4.9e	5.1	9
Lower Chena	59	2000	2/16	18a	3.2e	3.9e	---	1
Mt. Ryan	61	2950	2/16	21a	3.8e	5.4e	6.3	9
Munson Ridge	56	3100	2/16	34a	9.0e	5.5e	9.6	9
Teuchet Creek	57	1640	2/16	19a	3.6e	---	3.8	5
Upper Chena	58	3000	2/16	22a	4.4e	5.5e	6.9	9
AS OF MAR. 1, 1978								
<u>KOYUKUK DRAINAGE:</u>								
Anaktuvuk Pass	75	2100	2/27	24	4.9	---	2.8	9
Bettles Field	74	640	2/26	26	4.5	---	6.5	10
Coldfoot	109	1000	2/25	30	6.4	4.6	6.4	7
Dietrich River	110	1550	2/27	23	4.0	4.1	3.8	7
Lake Todatonten	73	980	2/26	20	3.5	---	5.0	9
Prospect Creek	108	980	2/25	26	4.9	4.6	5.8	7
Table Mountain	111	2200	2/27	28	5.9	3.9	3.6	6
<u>YUKON DRAINAGE:</u>								
Arctic Village	78	2300	2/28	22	3.0	5.0	3.1	14
Black River	84	650	2/28	17	2.4	3.8	3.8	13
Boundary	90	3300	3/1	20a	3.3e	3.3e	4.2	11
Chandalar Lake	76	2040	2/27	20	3.2	4.3	3.2	12
Chicken Airstrip	91	1650	3/1	13	1.8	2.2	2.6	13
Circle City	85	600	2/28	22	3.3	3.6	3.8	13
Circle Hot Springs	86	860	3/1	20	3.2	4.2	3.1	2
Coleen River	80	1100	N O			3.2e	2.8	13
Dempsey Creek	87	950	3/1	17a	2.6e	4.5e	4.1	9
Eagle Village	89	900	3/1	19	3.3	3.1	4.0	13

a - aerial marker reading e - estimated

+ For period of record

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD		
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)		Years of Previous Record
NAME	Number	Elevation				Last Year	Average †	
<u>YUKON DRAINAGE Continued:</u>								
Five Mile	106	400	2/25	26	4.4	5.4	4.4	7
Fort Yukon	83	430	2/27	18	2.8	3.4	3.2	13
Koness Lake	79	1790	2/28	18	2.4	3.2	2.8	11
Log Cabin (B.C.)	105	2880	2/25	34	8.0	12.9	11.7	17
Mt. Fairplay	92	3100	3/1	15a	2.3e	2.4e	3.4	8
Nation River	88	3050	3/1	17a	3.0e	---	5.6	5
Squaw Lake	77	2150	2/27	20a	3.2e	4.1e	3.2	11
Thirty Mile	107	1300	2/25	31	6.1	7.2	6.4	3
Venetie	82	610	2/27	19a	2.9e	3.2e	2.7	13
Vundik Lake	81	950	2/28	17a	2.5e	3.2e	2.7	10
<u>KUSKOKWIM DRAINAGE:</u>								
Farewell Lake	70	1090	2/26	14	2.3	2.5	3.0	10
Lake Minchumina	71	730	2/26	16	2.1	2.2	3.7	11
<u>TANANA-CHENA:</u>								
Big Delta	52	980	2/28	18	3.3	1.4	2.8	17
Bonanza Creek	66	1150	3/3	16	2.9	3.4	4.2	10
Caribou Creek	68	1440	3/2	16	2.9	3.5	5.6	7
Caribou Mine	55	1115	3/2	22	4.6	3.2	4.9	12
Caribou Snow Pillow (formerly Poker Creek)	69	1025	3/3	16	2.9	3.0	3.9	7
Cleary Summit	64	2230	3/2	21	4.1	4.9	5.8	17
Colorado Creek	63	750	3/1	19	3.2	3.3	4.6	12
Fielding Lake	49	3000	2/28	45	11.6	13.7	8.8	15
Fort Greely	50	1420	2/28	19	3.6	0.4	2.9	11
French Creek	53	2010	2/28	22	4.8	2.8	5.7	15
Granite Creek	51	1240	2/27	18	3.0	2.0	2.9	10
Haystack Mountain	67	1950	3/2	22	4.7	4.3	5.7	7
Little Chena Ridge	62	2200	3/3	20	3.7	5.1	5.3	13
Little Chena Slope	New	1460	3/2	19	3.1	---	---	--
Little Chena Bottom	New	1100	3/2	17	3.0	---	---	--
Little Salcha	54	1500	2/28	18	3.7	2.3	5.0	15
Lower Chena	59	2000	3/2	18	3.3	4.3	---	1
Mentasta Pass	47	2430	2/27	19	3.6	7.7	5.0	15
Monument Creek	60	1900	3/2	21	4.2	---	4.5	4
Mt. Ryan	61	2950	3/2	22	3.9	5.8	6.3	13
Munson Ridge	56	3100	3/2	34	9.3	---	10.4	13
Teuchet Creek	57	1640	3/2	20	3.8	4.1	3.8	5
Tok Junction	46	1650	2/27	14	2.1	2.3	3.0	17
Upper Chena	58	3000	3/2	22	4.7	6.0	7.5	9
Wien Lake	72	1020	2/26	16	2.9	2.2	3.6	10
Yak Pasture	65	540	3/2	19	3.6	3.0	4.1	16
<u>COPPER RIVER:</u>								
Haggard Creek	48	2540	2/28	26	5.2	8.7	5.2	12
Little Nelchina	31	4160	3/3	25a	4.7e	5.8e	4.5	10
Mankomen Lake	45	3050	3/1	26	4.5	9.0	5.9	11
St. Anne Lake	28	1990	3/3	20	3.7	4.6	4.3	13
Sanford River	27	2280	3/1	27	5.3	3.9e	4.5	11
Tsaina River	35	1500	2/27	47	11.2	22.0	14.1	5
Worthington Glacier	36	2400	2/27	63	15.5	32.4	17.0	11

a - aerial marker reading

e - estimated

† For period of record

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD		
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)		Years of Previous Record
NAME	Number	Elevation				Last Year	Average †	
<u>MATANUSKA-SUSITNA:</u>								
Alexander Lake	18	200	3/2	26	5.5	13.3	9.7	14
Bald Mountain Lake	23	2150	3/2	21a	4.6e	9.4e	6.1	13
Chelatna Lake	20	1650	3/2	33a	6.6e	7.8e	8.5	14
Clearwater Lake	26	3100	3/2	23	4.3	4.6	4.6	12
Devils Canyon	124	1350	3/2	19a	3.6e	7.0e	---	1
Fog Lakes	24	2250	3/2	17a	2.9e	5.9	5.3	8
Independence Mine	33	3300	2/28	35	9.7	20.3	15.2	11
Lake Louise	29	2400	3/2	22	3.9	3.7	3.6	13
Monahan Flat	25	2710	3/2	30	6.7	6.7e	6.2	13
Oshetna Lake	30	2950	3/3	17	3.0	3.4	3.3	13
Peters Hills	21	2010	3/2	40a	8.4e	16.5e	12.5	10
Sheep Mountain	34	2900	2/27	21	4.6	5.4	4.4	5
Skwentna	19	160	3/2	29	6.8	10.2	8.4	11
Talkeetna	22	350	3/2	21	5.0	7.1	6.9	11
Willow Airstrip	32	150	3/3	25	5.7	6.5	6.0	14
<u>UPPER COOK INLET:</u>								
Arctic Ski Bowl	5	3000	2/28	23	6.5	12.4	10.4	14
Arctic Valley #1	1	500	2/28	16	3.8	0.0	2.8	14
Arctic Valley #2	2	1000	2/28	18	4.0	0.9	2.9	14
Arctic Valley #3	3	2030	2/28	25	5.4	6.7	5.3	14
Arctic Valley #4	4	2330	2/28	22	5.5	7.0	5.8	14
Bird Creek	8	2350	3/4	46	13.6	16.7	13.9	11
Indian Pass	7	2350	3/4	56	17.0	15.3	17.5	11
McArthur	17	120	3/2	34a	10.2e	15.0e	17.2	12
Mt. Alyeska	10	1200	3/5	130	42.2	50.0	31.6	5
Ship Creek	6	1750	3/4	34	8.6	9.4	9.0	11
South Campbell Creek	9	1200	3/4	22	5.1	---	5.9	4
<u>PRINCE WILLIAM SOUND:</u>								
Lowe River	37	550	2/27	42	10.4	21.0	14.9	5
Valdez	38	50	2/27	40	10.9	24.3	16.6	5
<u>GLACIER STATIONS:</u>								
Wolverine Glacier A	39	2130	3/2	125	48.8	---	---	10
Wolverine Glacier B	40	3610	3/1	159	59.8	---	---	10
Wolverine Glacier C	41	4430	3/1	253	101.6	---	---	10
Gulkana Glacier A	42	4590	N O S	U R V E Y		---	---	10
Gulkana Glacier B	43	5480	N O S	U R V E Y		---	---	10
Gulkana Glacier C	44	6360	N O S	U R V E Y		---	---	10
<u>KENAI PENINSULA:</u>								
Bertha Creek	11	850	3/3	61	17.7	16.9	12.1	8
Bridge Creek, Lower	16	1100	3/2	47	11.4	12.6	10.9	6
Bridge Creek, Upper	15	1300	3/2	48	11.7	12.3	10.5	6
Jean Lake	14	620	3/3	15	3.6	3.0	2.7	8
Kenai Summit	12	1390	3/3	49	12.3	15.6	10.1	8
Moose Pass	13	700	3/3	18	6.7	0.0	4.4	8
a - aerial marker reading e - estimated								

† For period of record

SNOW

SNOW			THIS YEAR			PAST RECORD		
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)		Years of Previous Record
NAME	Number	Elevation				Last Year	Average †	
SOUTHEAST ALASKA:								
Cropley Lake	94	1650	3/1	44	17.2	20.2	----	1
Douglas Ski Bowl	93	1640	D E L A Y E D R E P O R T			28.4	35.5	10
Eagle Crest	95	1000	3/1	33	12.6	6.0	----	1
Fish Creek	96	500	3/1	26	8.1	0.0	----	1
Harriet Top	102	2000	N O S U R V E Y			----	53.1	4
Hunt Saddle	103	1500	N O S U R V E Y			----	40.9	4
Lake Shore	104	660	N O S U R V E Y			----	28.2	4
Speel River	98	280	2/28	60	20.0	----	30.0	12
WYOMING PRECIPITATION GAGES					INCREMENT SINCE LAST READING		ACCUMU-LATIVE TOTAL	
KOYUKUK			DATE					
Atigun Pass	123	4900	9/14 10/2 11/7 2/27	Initial	Reading 2.5 2.1* 1.4		2.5 4.6 6.0	
Chandalar Shelf	122	3400	9/14 10/2 11/7 2/26	Initial	Reading 1.4 2.0 3.0		1.4 3.4 6.4	
NORTH SLOPE								
Barrow	115	15	9/30	Initial	Reading			
Barter Island	117	15	10/1	Initial	Reading			
Kavik River	118	200	9/30	Initial	Reading			
Jago River	121	550	10/1	Initial	Reading			
Meade River	116	200	9/30	Initial	Reading			
Prudhoe Bay	114	30	9/30 11/22 3/3	Initial	Reading 1.9 1.4		1.9 3.3	
Sagwon	113	1000	9/4 10/2 11/7 2/27	Initial	Reading 1.2 1.0 1.0		1.2 2.2 3.2	
Toolik River	112	3100	9/11 10/2 11/7 2/27	Initial	Reading 0.8 1.0 0.9		0.8 1.8 2.7	
SEWARD PENINSULA								
Candle	119	20	10/31 1/17	Initial	Reading 1.1		1.1	
*Gage opening bridged over by snow.								
a - aerial marker reading e - estimated								

† For period of record



**SNOW COURSES AND RELATED
DATA MEASURING SITES**

ALASKA

1978

SCALE 1:2,500,000
ALBERS EQUAL AREA PROJECTION



MAP NO.	COURSE NAME	LAT.	LONG.	MEAS. DATES *	MEAS. * BY
1	Arctic Valley #1	57°30'N	148°30'W	3,4	a
2	Arctic Valley #2	57°33'N	148°15'W	3,4	a
3	Arctic Valley #3	58°05'N	145°35'W	3,4	a
4	Arctic Valley #4	67°55'N	144°08'W	3,4	a
5	Arctic Ski Bowl	67°44'N	142°28'W	3,4,7	a
6	Ship Creek	67°23'N	143°45'W	3,4	a
7	Indian Pass	67°03'N	146°25'W	3,4,7	a
8	Bird Creek	66°35'N	145°15'W	3,4,7	a
9	South Campbell Creek	66°36'N	142°45'W	3,4,7	a
10	Mt. Alyeska	65°50'N	144°05'W	3,4,7	a
11	Bertha Creek	65°29'N	144°39'W	3,4	a
12	Kenai Summit	66°06'N	141°48'W	3,4	a
13	Moose Pass	65°25'N	141°40'W	3,4	a
14	Jean Lake	64°08'N	141°08'W	3,4,7	a
15	Bridge Creek (UP)	64°05'N	141°27'W	3,4	a
16	Bridge Creek (LO)	64°05'N	141°45'W	3,4,7	a
17	McArthur	63°42'N	142°17'W	3,4,5	a
18	Alexander Lake	58°16'N	134°27'W	3,4,5	b
19	Skwentna	58°16'N	134°31'W	1,2,3,4	b
20	Chelatna Lake	58°17'N	134°32'W	1,2,3,4	b
21	Peters Hills	58°19'N	134°33'W	1,2,3,4	b
22	Talkeetna	58°11'N	133°53'W	3,4,5,6,7	e
23	Bald Mtn. Lake	58°09'N	133°43'W	3,4,5,6,7	e
24	Fog Lakes	56°47'N	132°56'W	2,3,4,5	b
25	Monahan Flat	56°46'N	132°56'W	2,3,4,5	b
26	Clearwater Lake	56°36'N	132°50'W	2,3,4,5	b
27	Sanford River	55°29'N	131°37'W	3,4,5	b
28	St. Anne's Lake	55°30'N	131°37'W	3,4,5	b
29	Lake Louise	55°29'N	131°36'W	3,4,5	b
30	Oshetna Lake	59°45'N	134°58'W	3,4,5	e
31	Little Nelchina	65°55'N	149°48'W	2,3,4,5	i
32	Willow Airstrip	66°13'N	150°15'W	2,3,4,5	i
33	Independence Mine	66°47'N	150°45'W	2,3,4,5	i
34	Sheep Mountain	67°16'N	150°10'W	1,2,3,4	i
35	Tsaina River	67°42'N	149°45'W	2,3,4,5	i
36	Worthington Glacier	67°58'N	149°45'W	2,3,4,5	i
37	Lowe River	68°37'N	149°26'W	7	d
38	Valdez	69°26'N	148°34'W	7	d
39	Wolverine Glacier (A)	70°15'N	148°30'W	7	h
40	Wolverine Glacier (B)	71°20'N	156°40'W	7	h
41	Wolverine Glacier C	70°29'N	157°25'W	7	h
42	Gulkana Glacier A	70°08'N	143°37'W	7	h
43	Gulkana Glacier B	69°30'N	147°00'W	7	h
44	Gulkana Glacier C	66°55'N	161°56'W	3,4	a,f
45	Mankomen Lake	65°40'N	162°27'W	3,4	a,f
46	Tok Junction	69°42'N	143°36'W	7	h
47	Mentasta Pass	68°05'N	149°29'W	7	d
48	Haggard Creek	68°08'N	149°35'W	7	d
49	Fielding Lake	62°49'N	149°18'W	2,3,4,5	a,c
50	Ft. Greely				
51	Granite Creek				
52	Big Delta				
53	French Creek				
54	Little Salcha				
55	Caribou Mine				
56	Munson Ridge				
57	Teuchet Creek				
58	Upper Chena	1, February 1, March 1, April 1,			
59	Lower Chena				
60	Monument Creek				
61	Mt. Ryan	now survey, as follows:			
62	Little Chena				
63	Colorado Creek				
64	Cleary Summit				
65	Yak Pasture	ngineering Lab			
66	Bonanza Creek				
67	Haystack Mtn.				
68	Caribou Creek				
69	Poker Creek				
70	Farewell Lake				
71	Lake Minchumina				
72	Wien Lake	er to:			
73	Lake Todatonten	er			
74	Bettles Field				
75	Anaktuvuk Pass				

AGENCIES AND ORGANIZATIONS COOPERATING IN ALASKA SNOW SURVEYS

CANADA

Department of Indian and Northern Affairs, Northern
Natural Resources and Environment, Yukon Territory

FEDERAL

Department of Agriculture
Forest Service
Institute of Northern Forestry
North Tongass National Forest
South Tongass National Forest
Chugach National Forest
Soil Conservation Service

Department of Commerce
NOAA National Weather Service

Department of Defense
U.S. Army Corps of Engineers
U.S. Army Cold Regions Research and Engineering Laboratory

Department of Interior
Bureau of Land Management
Geological Survey
Alaska Power Administration

STATE

Alaska Department of Fish and Game
Alaska Department of Highways
Alaska Department of Natural Resources, Division of Parks
Alaska Association of Soil Conservation Sub-districts
Alaska Soil Conservation District
University of Alaska
Alaska Experiment Station
Geophysical Institute

MUNICIPALITIES

Municipality of Anchorage

PUBLIC UTILITIES

Kodiak Electric Association

PRIVATE

Mt. Alyeska Resort, Inc.
NANA Regional Corporation

INDEX OF ALASKA SNOW COURSES

MAP NO.	COURSE NAME	COURSE NO. *	ELEV.	LAT.	LONG.	MEAS. DATES *	MEAS. BY *
1	Arctic Valley #1	49MM1	500	61°13'N	149°40'W	2,3,4,5	c
2	Arctic Valley #2	49MM2	1000	61°13'N	149°37'W	2,3,4,5	c
3	Arctic Valley #3	49MM3	2030	61°14'N	149°35'W	2,3,4,5	c
4	Arctic Valley #4	49MM4	2330	61°14'N	149°33'W	2,3,4,5	c
5	Arctic Ski Bowl	49MM5	3000	61°15'N	149°31'W	2,3,4,5	c
6	Ship Creek	49MM7MPS	1750	61°08'N	149°28'W	2,3,4,5	a
7	Indian Pass	49MM8A	2350	61°05'N	149°29'W	2,3,4,5	a
8	Bird Creek	49MM6A	2350	61°06'N	149°20'W	2,3,4,5,7	a
9	South Campbell Creek	49MM11	1200	61°08'N	149°42'W	2,3,4,5	a
10	Mt. Alyeska	49LL15S	1200	60°57'N	149°05'W	2,3,4,5	a,b
11	Bertha Creek	49LL2	850	60°45'N	149°51'W	2,3,4,5	a
12	Kenai Summit	49LL3	1390	60°40'N	149°28'W	2,3,4,5	a
13	Moose Pass	49LL4	700	60°31'N	149°30'W	2,3,4,5	a
14	Jean Lake	50LL1	620	60°31'N	150°11'W	2,3,4,5	a
15	Bridge Creek (UP)	51KK1	1300	59°42'N	151°28'W	3,4,5	a
16	Bridge Creek (LO)	51KK2	1100	59°40'N	151°32'W	3,4,5	a
17	McArthur	52LL1A	120	61°00'N	152°00'W	2,3,4,5	a,c
18	Alexander Lake	50MM1A	200	61°45'N	150°54'W	2,3,4,5	a,c
19	Skwentna	51MM1A	160	61°58'N	151°12'W	2,3,4,5	a,c
20	Ghelatna Lake	51NN1a	1650	62°31'N	151°29'W	2,3,4,5	a,c
21	Peters Hills	50NN1a	2010	62°31'N	150°57'W	2,3,4,5	a,c
22	Talkeetna	50NN2	350	62°18'N	150°05'W	2,3,4,5	a,c
23	Bald Mtn. Lake	49NN1A	2150	62°15'N	149°45'W	2,3,4,5	a,c
24	Fog Lakes	48NN2A	2250	62°47'N	148°29'W	2,3,4,5	a,c
25	Monahan Flat	47001A	2710	63°18'N	147°39'W	2,3,4,5	a,c
26	Clearwater Lake	46NN1A	3100	62°59'N	146°58'W	2,3,4,5	a,c
27	Sanford River	45NN2A	2280	62°13'N	145°04'W	2,3,4,5	a,c
28	St. Anne's Lake	46MM1A	1990	61°53'N	146°03'W	2,3,4,5	a,c
29	Lake Louise	46NN2A	2400	62°17'N	146°30'W	2,3,4,5	a,c
30	Oshetna Lake	47NN1A	2950	62°23'N	147°29'W	2,3,4,5	a,c
31	Little Nelchina	47NN2a	4160	62°07'N	147°36'W	2,3,4,5	a,c
32	Willow Airstrip	50MM2	150	61°45'N	150°03'W	2,3,4,5	a,c
33	Independence Mine	49MM10	3300	61°45'N	149°25'W	3,4,5	a
34	Sheep Mountain	47MM2	2900	61°47'N	147°30'W	3,4,5	a
35	Tsaina River	45MM4	1500	61°12'N	145°30'W	3,4,5	a
36	Worthington Glacier	45MM2	2400	61°10'N	145°45'W	3,4,5	a
37	Lowe River	45MM3	550	61°06'N	145°50'W	3,4,5	a
38	Valdez	46MM2	50	61°08'N	146°20'W	2,3,4,5	a
39	Wolverine Glacier (A)	48LL1	2130	60°23'N	148°54'W	1,2,4,5,6,7	g
40	Wolverine Glacier (B)	48LL2	3610	60°25'N	148°55'W	2,3,4,5,6,7	g
41	Wolverine Calcier G	48LL3	4430	60°25'N	148°55'W	1,2,4,6,7	g
42	Gulkana Glacier A	45006	4590	63°15'N	145°29'W	2,3,4,5,6,7	g
43	Gulkana Glacier B	45007	5480	63°17'N	145°26'W	2,3,4,5,6,7	g
44	Gulkana Glacier G	45008	6360	63°19'N	145°29'W	5,6,7	g
45	Mankomen Lake	44NN1	3050	63°00'N	144°32'W	2,3,4,5	a
46	Tok Junction	43001	1650	63°18'N	143°00'W	2,3,4,5	a
47	Mentasta Pass	43NN1	2430	62°51'N	143°30'W	2,3,4,5	a
48	Haggard Creek	45NN1A	2540	62°42'N	145°28'W	2,3,4,5	a
49	Fielding Lake	45001A	3000	63°18'N	145°33'W	2,3,4,5	a
50	Ft. Greely	45005	1420	63°57'N	145°45'W	1,2,3,4,5,7	a
51	Granite Creek	45004	1240	63°57'N	145°24'W	1,2,3,4,5,7	a
52	Big Delta	45PP1	980	64°14'N	145°58'W	2,3,4,5	a
53	French Creek	46PP2MA	2010	64°43'N	146°40'W	2,3,4,5,7	a
54	Little Salcha	46PP3	1500	64°38'N	146°44'W	2,3,4,5,7	a
55	Caribou Mine	45PP2A	1115	64°40'N	145°40'W	2,3,4,5,7	a
56	Munson Ridge	46PP1AP	3100	64°52'N	146°13'W	2,3,4,5,7	a
57	Teuchet Creek	45PP3	1640	64°57'N	145°31'W	2,3,4,5	a
58	Upper Chena	44QQ1AP	3000	65°07'N	144°55'W	2,3,4,5,7	a
59	Lower Chena	44QQ6	2000	65°04'N	144°59'W	2,3,4,5,7	a
60	Monument Creek	45QQ2	1900	65°03'N	145°55'W	2,3,4,5	a
61	Mt. Ryan	46QQ1AP	2950	65°16'N	146°07'W	2,3,4,5,7	a
62	Little Chena	46QQ2AP	2200	65°08'N	146°32'W	2,3,4,5,7	a
63	Colorado Creek	46PP4S	750	64°52'N	146°39'W	1,2,3,4,5,7	a
64	Gleary Summit	47QQ1A	2230	65°03'N	147°24'W	1,2,3,4,5,7	a
65	Yak Pasture	47PP1	540	64°52'N	147°55'W	2,3,4,5	a
66	Bonanza Creek	48PP1	1150	64°45'N	148°20'W	2,3,4,5	b
67	Haystack Mtn.	47QQ2	1950	65°08'N	147°38'W	2,3,4,5	d
68	Caribou Creek	47QQ3	1440	65°09'N	147°35'W	2,3,4,5	d
69	Poker Creek	47QQ4S	1025	65°08'N	147°32'W	2,3,4,5,7	d
70	Farewell Lake	53NN1A	1090	62°34'N	153°35'W	3,4	a
71	Lake Minchumina	52001A	730	63°53'N	152°18'W	3,4	a
72	Wien Lake	51PP1A	1020	64°22'N	151°18'W	3,4	a
73	Lake Todatonten	52RR1a	980	66°10'N	152°55'W	3,4	a
74	Bettles Field	51RR1A	640	66°35'N	151°32'W	3,4	a
75	Anaktuvuk Pass	51TT1A	2100	68°09'N	151°41'W	3,4	a

MAP NO.	COURSE NAME	COURSE NO. *	ELEV.	LAT.	LONG.	MEAS. DATES *	MEAS. BY *
76	Ghandalar Lake	48SS1A	2040	67°30'N	148°30'W	3,4	a
77	Squaw Lake	48SS2a	2150	67°33'N	148°15'W	3,4	a
78	Arctic Village	45TT1A	2300	68°05'N	145°35'W	3,4	a
79	Koness Lake	44SS1A	1790	67°55'N	144°08'W	3,4	a
80	Goleen River	42SS1A	1100	67°44'N	142°28'W	3,4,7	a
81	Vundik Lake	43SS1a	950	67°23'N	143°45'W	3,4	a
82	Venetie	46SS1A	610	67°03'N	146°25'W	3,4,7	a
83	Fort Yukon	45RR1AM	430	66°35'N	145°15'W	3,4,7	a
84	Black River	42RR1A	650	66°36'N	142°45'W	3,4,7	a
85	Gircle Gity	44QQ3A	600	65°50'N	144°05'W	3,4,7	a
86	Gircle Hot Springs	44QQ5	860	65°29'N	144°39'W	3,4	a
87	Dempsey Creek	41RR2A	950	66°06'N	141°48'W	3,4	a
88	Nation River	41QQ1a	3050	65°25'N	141°40'W	3,4	a
89	Eagle Village	41PP1A	900	64°08'N	141°08'W	3,4,7	a
90	Boundary	41PP3A	3300	64°05'N	141°27'W	3,4	a
91	Chicken Airstrip	41PP2A	1650	64°05'N	141°45'W	3,4,7	a
92	Mt. Fairplay	42001a	3100	63°42'N	142°17'W	3,4,5	a
93	Douglas Ski Bowl	34JJ1	1640	58°16'N	134°27'W	3,4,5	b
94	Gropley Lake	34JJ2	1650	58°16'N	134°31'W	1,2,3,4	b
95	Eagle Crest	34JJ3	1000	58°17'N	134°32'W	1,2,3,4	b
96	Fish Creek	34JJ4	500	58°19'N	134°33'W	1,2,3,4	b
97	Upper Long Lake	33JJ2aS	1000	58°11'N	133°53'W	3,4,5,6,7	e
98	Speel River	33JJ3A	280	58°09'N	133°43'W	3,4,5,6,7	e
99	Petersburg Reservoir	32HH1	550	56°47'N	132°56'W	2,3,4,5	b
100	Mitkof Island	32HH2	1050	56°46'N	132°56'W	2,3,4,5	b
101	Crystal Lake	32HH3	1375	56°36'N	132°50'W	2,3,4,5	b
102	Harriet Top	31GG1	2000	55°29'N	131°37'W	3,4,5	b
103	Hunt Saddle	31CG2	1500	55°30'N	131°37'W	3,4,5	b
104	Lake Shore	31GG3	660	55°29'N	131°36'W	3,4,5	b
105	Log Cabin (B.C.)	34KK1	2880	59°45'N	134°58'W	3,4,5	e
106	Five Mile Camp	49RR1	400	65°55'N	149°48'W	2,3,4,5	i
107	Thirty Mile	50RR2a	1300	66°13'N	150°15'W	2,3,4,5	i
108	Prospect Creek	50RR1	980	66°47'N	150°45'W	2,3,4,5	i
109	Gold Foot Camp	50SS1	1000	67°16'N	150°10'W	1,2,3,4	i
110	Dietrich Camp	49SS1A	1550	67°42'N	149°45'W	2,3,4,5	i
111	Table Mountain	49SS3a	2200	67°58'N	149°45'W	2,3,4,5	i
112	Toolik River	49TT1	3100	68°37'N	149°26'W	7	d
113	Sagwon	48UU1	1000	69°26'N	148°34'W	7	d
114	Prudhoe Bay	48VV1	30	70°15'N	148°30'W	7	h
115	Barrow	56WW1	15	71°20'N	156°40'W	7	h
116	Meade River	57VV1	200	70°29'N	157°25'W	7	h
117	Barter Island	43VV1	15	70°08'N	143°37'W	7	h
118	Kavik River	47UU1	200	69°30'N	147°00'W	7	h
119	Candle	61QQ1	20	66°55'N	161°56'W	3,4	a,f
120	Kugruk River	62QQ1	225	65°40'N	162°27'W	3,4	a,f
121	Jago River	43UU1	550	69°42'N	143°36'W	7	h
122	Chandalar Shelf	49TT2	3400	68°05'N	149°29'W	7	d
123	Atigun Pass	49TT3	4900	68°08'N	149°35'W	7	d
124	Devils Canyon	49NN2a	1350	62°49'N	149°18'W	2,3,4,5	a,c

LEGEND

* Numerals 1,2,3,4,5, and 6 refer to January 1, February 1, March 1, April 1, May 1, June 1, and 7 - for special dates.

* Letters refer to Agency that secures the snow survey, as follows:

- * a. Soil Conservation Service
- b. Forest Service
- c. U.S. Army Corps of Engineers
- d. U.S. Army Gold Regions Research & Engineering Lab
- e. Alaska Power Administration
- f. Bureau of Land Management
- g. U.S. Geological Survey
- h. University of Alaska
- i. Alaska Pipeline Office

* Letters following the snow course no. refer to:

- * A. Snow course and aerial stadia marker
- * a. Aerial stadia marker only
- M. Soil Moisture Station
- P. Precipitation Storage Gage
- S. Snow Pillow

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